

We claim:

- 1 1. A multi-staged services policer comprising:
 - 2 a downstream services policer; and
 - 3 an upstream services policer adapted to:
 - 4 receive a traffic unit;
 - 5 analyze said traffic unit;
 - 6 based on said analysis, transmit said traffic unit to said downstream
 - 7 services policer; and
 - 8 receive feedback from said downstream services policer.
- 1 2. The multi-staged services policer of claim 1 wherein said feedback from said
2 downstream services policer is an indication of available bandwidth.
- 1 3. The multi-staged services policer of claim 1 wherein said traffic unit is a first
2 traffic unit and said upstream services policer is further adapted to:
 - 3 receive a second traffic unit;
 - 4 analyze said second traffic unit in light of said feedback; and
 - 5 based on said analysis, transmit said traffic unit to said downstream services
 - 6 policer.
- 1 4. The multi-staged services policer of claim 1 wherein at least one of said services
2 policers polices at an application layer granularity.
- 1 5. The multi-staged services policer of claim 1 wherein at least one of said services
2 policers polices at a data link layer granularity.
- 1 6. The multi-staged services policer of claim 1 wherein said traffic unit is an
2 Asynchronous Transfer Mode cell.

- 1 7. The multi-staged services policer of claim 1 wherein said traffic unit is a Frame
2 Relay frame.
- 1 8. The multi-staged services policer of claim 1 wherein said traffic unit is a Internet
2 protocol packet.
- 1 9. The multi-staged services policer of claim 1 where said upstream services policer
2 is a first upstream services policer and said multi-staged services policer further
3 comprises a second upstream services policer adapted to transmit traffic units
4 received at said second upstream services policer to said downstream services
5 policer based on an analysis specific to said second upstream services policer and
6 wherein said downstream services policer affords a higher priority to traffic units
7 received from said second upstream services policer than to traffic units received
8 from said first upstream services policer.
- 1 10. A method of handling traffic units comprising:
2 receiving a traffic unit;
3 analyzing said traffic unit;
4 based on said analysis, transmitting said traffic unit to a downstream services
5 policer; and
6 receiving feedback from said downstream services policer.
- 1 11. The method of claim 10 wherein said traffic unit is a first traffic unit and said
2 method further comprises:
3 receiving a second traffic unit;
4 analyzing said second traffic unit in light of said feedback; and
5 based on said analysis, transmitting said traffic unit to said downstream
6 services policer.

1 12. A computer readable medium containing computer-executable instructions which,
2 when performed by processor in an upstream services policer that is upstream of a
3 downstream services policer, cause the processor to:

4 receive a traffic unit;

5 analyze said traffic unit;

6 based on said analysis, transmit said traffic unit to said downstream services
7 policer; and

8 receive feedback from said downstream services policer.

1 13. A multi-staged services policer comprising:

2 a downstream services policer; and

3 an upstream services policer adapted to:

4 receive a traffic unit;

5 analyze said traffic unit;

6 based on said analysis, amend said traffic unit resulting in an amended
7 traffic unit including an amendment, where said amendment may be
8 interpreted by said downstream services policer; and

9 transmit said amended traffic unit to said downstream services policer.

1 14. A multi-staged services policer comprising:

2 a first services policer;

3 a second services policer; and

4 a third services policer receiving output from each of said first services policer
5 and said second services policer.